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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,223	02/03/2004	Kenji Ishii	9683/165	2202

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EXAMINER	
BATURAY, ALICIA	
ART UNIT	**PAPER NUMBER**
2446	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/772,223	ISHII ET AL.	
	Examiner	Art Unit	
	Alicia Baturay	2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the amendment filed 06 July 2010.

2. Claims 1-28 were cancelled.

3. Claims 35-38 were added.

4. Claims 29-38 are pending in this Office Action.

Response to Amendment

5. Applicant's amendments and arguments with respect to claims 29-34 and new claims 35-38 filed on 06 July 2010 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 29-32, 34, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen (U.S. 2003/0046426) in view of Guimbellot et al. (U.S. 2004/0153866) and further in view of Bell et al. (U.S. 2003/0130980).

Nguyen teaches the invention substantially as claimed including a method and system of providing for central control and intelligent routing of data network traffic where a server is

operatively connected to a network and is capable of receiving information regarding network status, specifically capable of recognizing network congestion, formulating a solution to the network congestion and re-configure network traffic to reroute around network congestion (see Abstract).

8. With respect to claim 29, Nguyen teaches a network structure controlling device comprising: a memory; and a processor in communication with the memory, the memory comprising computer executable instructions, the computer executable instructions executable with the processor (Nguyen, page 2, paragraphs 43 and 46) and comprising: a function relocation unit configured to analyze, in response to an instruction of relocation, a plurality of node resources in a network based on statutes of the node resources, to determine new node locations of at least one node function, and to relocate the at least one node function to the new node locations (Nguyen, page 4, paragraph 85 – page 5, paragraph 122), in accordance with a relocation plan (Nguyen, page 3, paragraphs 63-72); a path restructure unit configured to restructure a structure of paths in the network into an optimum condition in accordance with statuses of link resources in the network (Nguyen, page 4, paragraphs 84 and 85) and in response to an instruction of restructuring (Nguyen, page 5, paragraph 123 – page 6, paragraph 124), wherein the path restructure unit is configured to determine a restructuring plan for the structure of the paths based on an exchange of data on a draft relocation plan of the at least one node function and data on a draft restructuring plan of the structure of the paths (Nguyen, page 3, paragraphs 57-72 and Nguyen, page 5, paragraphs 107-122), the exchange of data being between the function relocation unit and the path

restructure unit (Nguyen, page 4, paragraph 85 - page 5, paragraph 122); and a control unit configured to determine whether transmission of the instruction of relocation to the function relocation unit is necessary and whether transmission of the instruction of restructuring to the path restructure unit is necessary (Nguyen, page 4, paragraph 85 – page 5, paragraph 122) based on the statutes of the node resources and the statues of link resources (Nguyen, page 3, paragraphs 63-72), wherein the control unit is further configured to selectively transmit the instruction of relocation and the instruction of restructuring (Nguyen, page 5, paragraphs 88-122).

Nguyen does not explicitly teach the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices.

However, Guimbellot teaches the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function (Guimbellot, page 6, paragraph 58 and 60) from the first device (Guimbellot, Fig. 2, element 210; page 5, paragraph 52) to the second device (Guimbellot, Fig. 2, element 212; page 5, paragraph 52), the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction (Guimbellot, page 5, paragraph 52), the node resources comprising resources of the first and second devices (Guimbellot, page 4, paragraph 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Guimbellot in order to enable the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices. One would be motivated to do so in order to transfer resources from a failing or offline cluster server to a functioning one, thereby providing users with constant access to resources (Guimbellot, page 1, paragraph 6).

The combination of Nguyen and Guimbellot does not explicitly teach the node function definition data comprising executable code that implements the at least one node function.

However, Bell teaches the node function definition data comprising executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen and Guimbellot in view of Bell in order to enable the node function definition data comprising executable code that implements the at least one node function. One would be motivated to do so in order to reduce the effort required to gather configuration data necessary to allow a second executable computer code to take over the functions of a first executable computer code (Bell, page 1, paragraph 2).

9. With respect to claim 30, Nguyen teaches the invention described in claim 29, including the function relocation unit is configured to determine the first device and the second device (Nguyen, page 5, paragraphs 88-122).

10. With respect to claim 31, Nguyen teaches the invention described in claim 30, including the network structure controlling device wherein the control unit is configured to: transmit the instruction of relocation in response to a determination that relocation of the at least one node function from the first device to the second device is necessary; and transmit the instruction of restructuring in response to a determination that reconfiguration of a communication path formed in the network is necessary (Nguyen, page 3, paragraphs 63-72).

11. With respect to claim 32, Nguyen teaches the invention described in claim 30, including the network structure controlling device wherein the function relocation unit is configured to generate a provisional determination of the first device and the second device, the draft relocation plan of the at least one node function comprising the provisional determination of the first device and the second device; and the path restructure unit is configured to generate a final determination of a new communication path based on the provisional determination of the first device and the second device, the restructuring plan of the structure of the paths comprising the final determination of the new communication path (Nguyen, page 3, paragraphs 63-72).

12. With respect to claim 34, Nguyen teaches the invention described in claim 30, including Nguyen does not explicitly teach the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices.

However, Guimbellot teaches the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function (Guimbellot, page 6, paragraph 58 and 60) from the first device (Guimbellot, Fig. 2, element 210; page 5, paragraph 52) to the second device (Guimbellot, Fig. 2, element 212; page 5, paragraph 52), the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction (Guimbellot, page 5, paragraph 52), the node resources comprising resources of the first and second devices (Guimbellot, page 4, paragraph 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Guimbellot in order to enable the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices. One would be motivated to do so in order to transfer resources from a failing

or offline cluster server to a functioning one, thereby providing users with constant access to resources (Guimbellot, page 1, paragraph 6).

The combination of Nguyen and Guimbellot does not explicitly teach the node function definition data comprising executable code that implements the at least one node function.

However, Bell teaches the node function definition data comprising executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47); and the network structure controlling device wherein the at least one node function comprises at least one of a firewall function, a mobility control function, a call control function, a data copy function, a multicast function, a mobile anchor function, or a mobile buffering function (Bell, pages 5-6, paragraphs 45-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen and Guimbellot in view of Bell in order to enable the node function definition data comprising executable code that implements the at least one node function. One would be motivated to do so in order to reduce the effort required to gather configuration data necessary to allow a second executable computer code to take over the functions of a first executable computer code (Bell, page 1, paragraph 2).

13. With respect to claim 38, Nguyen teaches the invention described in claim 29, including a network structure controlling device comprising: a memory; and a processor in communication with the memory, the memory comprising computer executable instructions, the computer executable instructions executable with the processor (Nguyen, page 2, paragraphs 43 and 46) and comprising: a function relocation unit configured to analyze, in

response to an instruction of relocation, a plurality of node resources in a network based on statutes of the node resources, to determine new node locations of at least one node function, and to relocate the at least one node function to the new node locations (Nguyen, page 4, paragraph 85 – page 5, paragraph 122), in accordance with a relocation plan (Nguyen, page 3, paragraphs 63-72); a path restructure unit configured to restructure a structure of paths in the network into an optimum condition in accordance with statuses of link resources in the network (Nguyen, page 4, paragraphs 84 and 85) and in response to an instruction of restructuring (Nguyen, page 5, paragraph 123 – page 6, paragraph 124), wherein the path restructure unit is configured to determine a restructuring plan for the structure of the paths based on an exchange of data on a draft relocation plan of the at least one node function and data on a draft restructuring plan of the structure of the paths (Nguyen, page 3, paragraphs 57-72 and Nguyen, page 5, paragraphs 107-122), the exchange of data being between the function relocation unit and the path restructure unit (Nguyen, page 4, paragraph 85 - page 5, paragraph 122); and a control unit configured to determine whether transmission of the instruction of relocation to the function relocation unit is necessary and whether transmission of the instruction of restructuring to the path restructure unit is necessary (Nguyen, page 4, paragraph 85 – page 5, paragraph 122) based on the statutes of the node resources and the statues of link resources (Nguyen, page 3, paragraphs 63-72), wherein the control unit is further configured to selectively transmit the instruction of relocation and the instruction of restructuring (Nguyen, page 5, paragraphs 88-122).

Nguyen does not explicitly teach the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function

from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices.

However, Guimbellot teaches the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function (Guimbellot, page 6, paragraph 58 and 60) from the first device (Guimbellot, Fig. 2, element 210; page 5, paragraph 52) to the second device (Guimbellot, Fig. 2, element 212; page 5, paragraph 52), the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction (Guimbellot, page 5, paragraph 52), the node resources comprising resources of the first and second devices (Guimbellot, page 4, paragraph 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Guimbellot in order to enable the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices. One would be motivated to do so in order to transfer resources from a failing or offline cluster server to a functioning one, thereby providing users with constant access to resources (Guimbellot, page 1, paragraph 6).

The combination of Nguyen and Guimbellot does not explicitly teach the node function definition data comprising executable code that implements the at least one node function.

However, Bell teaches the node function definition data comprising executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47), and the network structure controlling device wherein the at least one node function is at least one network service unavailable at the second device prior to both receipt of the executable code from the first device and addition of the executable code to the second device (Bell, pages 5-6, paragraphs 45-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen and Guimbellot in view of Bell in order to enable the node function definition data comprising executable code that implements the at least one node function. One would be motivated to do so in order to reduce the effort required to gather configuration data necessary to allow a second executable computer code to take over the functions of a first executable computer code (Bell, page 1, paragraph 2).

14. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen in view of Guimbellot in view of Bell and further in view of Weinert et al. (U.S. 7,454,516).

15. With respect to claim 33, Nguyen teaches the invention described in claim 30, including a network structure controlling device comprising: a memory; and a processor in communication with the memory, the memory comprising computer executable instructions, the computer executable instructions executable with the processor (Nguyen, page 2, paragraphs 43 and 46) and comprising: a function relocation unit configured to analyze, in

response to an instruction of relocation, a plurality of node resources in a network based on statutes of the node resources, to determine new node locations of at least one node function, and to relocate the at least one node function to the new node locations (Nguyen, page 4, paragraph 85 – page 5, paragraph 122), in accordance with a relocation plan (Nguyen, page 3, paragraphs 63-72); a path restructure unit configured to restructure a structure of paths in the network into an optimum condition in accordance with statuses of link resources in the network (Nguyen, page 4, paragraphs 84 and 85) and in response to an instruction of restructuring (Nguyen, page 5, paragraph 123 – page 6, paragraph 124), wherein the path restructure unit is configured to determine a restructuring plan for the structure of the paths based on an exchange of data on a draft relocation plan of the at least one node function and data on a draft restructuring plan of the structure of the paths (Nguyen, page 3, paragraphs 57-72 and Nguyen, page 5, paragraphs 107-122), the exchange of data being between the function relocation unit and the path restructure unit (Nguyen, page 4, paragraph 85 - page 5, paragraph 122); and a control unit configured to determine whether transmission of the instruction of relocation to the function relocation unit is necessary and whether transmission of the instruction of restructuring to the path restructure unit is necessary (Nguyen, page 4, paragraph 85 – page 5, paragraph 122) based on the statutes of the node resources and the statues of link resources (Nguyen, page 3, paragraphs 63-72), wherein the control unit is further configured to selectively transmit the instruction of relocation and the instruction of restructuring (Nguyen, page 5, paragraphs 88-122).

Nguyen does not explicitly teach the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function

from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices.

However, Guimbellot teaches the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function (Guimbellot, page 6, paragraph 58 and 60) from the first device (Guimbellot, Fig. 2, element 210; page 5, paragraph 52) to the second device (Guimbellot, Fig. 2, element 212; page 5, paragraph 52), the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction (Guimbellot, page 5, paragraph 52), the node resources comprising resources of the first and second devices (Guimbellot, page 4, paragraph 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Guimbellot in order to enable the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices. One would be motivated to do so in order to transfer resources from a failing or offline cluster server to a functioning one, thereby providing users with constant access to resources (Guimbellot, page 1, paragraph 6).

The combination of Nguyen and Guimbellot does not explicitly teach the node function definition data comprising executable code that implements the at least one node function.

However, Bell teaches the node function definition data comprising executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen and Guimbellot in view of Bell in order to enable the node function definition data comprising executable code that implements the at least one node function. One would be motivated to do so in order to reduce the effort required to gather configuration data necessary to allow a second executable computer code to take over the functions of a first executable computer code (Bell, page 1, paragraph 2).

The combination of Nguyen, Guimbellot, and Bell does not explicitly teach preventing a node resource and a link resource of the first device and the second device from being controlled by another network structure controlling device.

However, Weinert teaches the network structure controlling device further comprising an exclusive control unit configured to prevent a node resource and a link resource of the first device and the second device from being controlled by another network structure controlling device in the network (Weinert, col. 12, line 65 – col. 13, line 3) in response to a determination by the control unit that relocation of the at least one node function of the first device in the network is necessary (Weinert, col. 10, line 62 – col. 11, line 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen, Guimbellot, and Bell in view of Weinert in order to enable preventing a node resource and a link resource of the first device and the second device from being controlled by another network structure controlling device. One would be motivated to do so in order to attempt to avoid overload of any single machine by

directing only a percentage of the incoming requests for web pages to any one content server (Weinert, col. 2, lines 6-9).

16. Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen in view of Guimbellot in view of Bell and further in view of Leung et al. (U.S. 2003/0224788).

17. With respect to claim 35, Nguyen teaches the invention described in claim 29, including a network structure controlling device comprising: a memory; and a processor in communication with the memory, the memory comprising computer executable instructions, the computer executable instructions executable with the processor (Nguyen, page 2, paragraphs 43 and 46) and comprising: a function relocation unit configured to analyze, in response to an instruction of relocation, a plurality of node resources in a network based on statutes of the node resources, to determine new node locations of at least one node function, and to relocate the at least one node function to the new node locations (Nguyen, page 4, paragraph 85 – page 5, paragraph 122), in accordance with a relocation plan (Nguyen, page 3, paragraphs 63-72); a path restructure unit configured to restructure a structure of paths in the network into an optimum condition in accordance with statuses of link resources in the network (Nguyen, page 4, paragraphs 84 and 85) and in response to an instruction of restructuring (Nguyen, page 5, paragraph 123 – page 6, paragraph 124), wherein the path restructure unit is configured to determine a restructuring plan for the structure of the paths based on an exchange of data on a draft relocation plan of the at least one node function and

data on a draft restructuring plan of the structure of the paths (Nguyen, page 3, paragraphs 57-72 and Nguyen, page 5, paragraphs 107-122), the exchange of data being between the function relocation unit and the path restructure unit (Nguyen, page 4, paragraph 85 - page 5, paragraph 122); and a control unit configured to determine whether transmission of the instruction of relocation to the function relocation unit is necessary and whether transmission of the instruction of restructuring to the path restructure unit is necessary (Nguyen, page 4, paragraph 85 – page 5, paragraph 122) based on the statutes of the node resources and the statues of link resources (Nguyen, page 3, paragraphs 63-72), wherein the control unit is further configured to selectively transmit the instruction of relocation and the instruction of restructuring (Nguyen, page 5, paragraphs 88-122).

Nguyen does not explicitly teach the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices.

However, Guimbellot teaches the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function (Guimbellot, page 6, paragraph 58 and 60) from the first device (Guimbellot, Fig. 2, element 210; page 5, paragraph 52) to the second device (Guimbellot, Fig. 2, element 212; page 5, paragraph 52), the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction (Guimbellot, page 5,

paragraph 52), the node resources comprising resources of the first and second devices (Guimbellot, page 4, paragraph 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Guimbellot in order to enable the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices. One would be motivated to do so in order to transfer resources from a failing or offline cluster server to a functioning one, thereby providing users with constant access to resources (Guimbellot, page 1, paragraph 6).

The combination of Nguyen and Guimbellot does not explicitly teach the node function definition data comprising executable code that implements the at least one node function.

However, Bell teaches the node function definition data comprising executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47), the node function definition data (Bell, pages 5-6, paragraphs 45-47), and the user data being data processed in response to execution of the executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen and Guimbellot in view of Bell in order to enable the node function definition data comprising executable code that implements the at least one node function. One would be motivated to do so in order to reduce the effort

required to gather configuration data necessary to allow a second executable computer code to take over the functions of a first executable computer code (Bell, page 1, paragraph 2).

The combination of Nguyen and Guimbellot does not explicitly teach the network structure controlling device wherein the first device is further configured to transmit both user data directly from the first device to the second device.

However, Leung teaches the network structure controlling device wherein the first device is further configured to transmit both user data (Leung, page 1, paragraph 9) directly from the first device to the second device (Leung, page 1, paragraph 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen, Guimbellot, and Bell in view of Leung in order to enable the network structure controlling device wherein the first device is further configured to transmit both user data (Leung, page 1, paragraph 9) directly from the first device to the second device. One would be motivated to do so in order to more efficiently route data traffic (Leung, page 2, paragraph 13).

18. With respect to claim 36, Nguyen teaches the invention described in claim 29, including a network structure controlling device comprising: a memory; and a processor in communication with the memory, the memory comprising computer executable instructions, the computer executable instructions executable with the processor (Nguyen, page 2, paragraphs 43 and 46) and comprising: a function relocation unit configured to analyze, in response to an instruction of relocation, a plurality of node resources in a network based on statutes of the node resources, to determine new node locations of at least one node function,

and to relocate the at least one node function to the new node locations (Nguyen, page 4, paragraph 85 – page 5, paragraph 122), in accordance with a relocation plan (Nguyen, page 3, paragraphs 63-72); a path restructure unit configured to restructure a structure of paths in the network into an optimum condition in accordance with statuses of link resources in the network (Nguyen, page 4, paragraphs 84 and 85) and in response to an instruction of restructuring (Nguyen, page 5, paragraph 123 – page 6, paragraph 124), wherein the path restructure unit is configured to determine a restructuring plan for the structure of the paths based on an exchange of data on a draft relocation plan of the at least one node function and data on a draft restructuring plan of the structure of the paths (Nguyen, page 3, paragraphs 57-72 and Nguyen, page 5, paragraphs 107-122), the exchange of data being between the function relocation unit and the path restructure unit (Nguyen, page 4, paragraph 85 - page 5, paragraph 122); and a control unit configured to determine whether transmission of the instruction of relocation to the function relocation unit is necessary and whether transmission of the instruction of restructuring to the path restructure unit is necessary (Nguyen, page 4, paragraph 85 – page 5, paragraph 122) based on the statutes of the node resources and the statues of link resources (Nguyen, page 3, paragraphs 63-72), wherein the control unit is further configured to selectively transmit the instruction of relocation and the instruction of restructuring (Nguyen, page 5, paragraphs 88-122).

Nguyen does not explicitly teach the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node

function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices.

However, Guimbellot teaches the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function (Guimbellot, page 6, paragraph 58 and 60) from the first device (Guimbellot, Fig. 2, element 210; page 5, paragraph 52) to the second device (Guimbellot, Fig. 2, element 212; page 5, paragraph 52), the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction (Guimbellot, page 5, paragraph 52), the node resources comprising resources of the first and second devices (Guimbellot, page 4, paragraph 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Guimbellot in order to enable the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices. One would be motivated to do so in order to transfer resources from a failing or offline cluster server to a functioning one, thereby providing users with constant access to resources (Guimbellot, page 1, paragraph 6).

The combination of Nguyen and Guimbellot does not explicitly teach the node function definition data comprising executable code that implements the at least one node function.

However, Bell teaches the node function definition data comprising executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47), the node function definition data (Bell, pages 5-6, paragraphs 45-47), and the user data being data processed in response to execution of the executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen and Guimbellot in view of Bell in order to enable the node function definition data comprising executable code that implements the at least one node function. One would be motivated to do so in order to reduce the effort required to gather configuration data necessary to allow a second executable computer code to take over the functions of a first executable computer code (Bell, page 1, paragraph 2).

The combination of Nguyen and Guimbellot does not explicitly teach the network structure controlling device wherein the first device is further configured to transmit both user data directly from the first device to the second device.

However, Leung teaches the network structure controlling device wherein the control unit is further configured to selectively transmit the instruction of relocation in response to receipt of an adaptive control request indicative of detection of movement of a user terminal from a first coverage area to a second coverage area (Leung, page 1, paragraph 9), wherein relocation of the at least one node function comprises relocation of user data from a first service node that serves the first coverage area to a second service node that serves the second coverage area (Leung, page 1, paragraph 9), the node resources include node

resources of the first service node and the second service node (Leung, page 3, paragraph 35), and the user data is associated with the user terminal (Leung, page 3, paragraph 35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen, Guimbellot, and Bell in view of Leung in order to enable the network structure controlling device wherein the first device is further configured to transmit both user data (Leung, page 1, paragraph 9) directly from the first device to the second device. One would be motivated to do so in order to more efficiently route data traffic (Leung, page 2, paragraph 13).

19. With respect to claim 37, Nguyen teaches the invention described in claim 29, including a network structure controlling device comprising: a memory; and a processor in communication with the memory, the memory comprising computer executable instructions, the computer executable instructions executable with the processor (Nguyen, page 2, paragraphs 43 and 46) and comprising: a function relocation unit configured to analyze, in response to an instruction of relocation, a plurality of node resources in a network based on statutes of the node resources, to determine new node locations of at least one node function, and to relocate the at least one node function to the new node locations (Nguyen, page 4, paragraph 85 – page 5, paragraph 122), in accordance with a relocation plan (Nguyen, page 3, paragraphs 63-72); a path restructure unit configured to restructure a structure of paths in the network into an optimum condition in accordance with statuses of link resources in the network (Nguyen, page 4, paragraphs 84 and 85) and in response to an instruction of restructuring (Nguyen, page 5, paragraph 123 – page 6, paragraph 124), wherein the path

restructure unit is configured to determine a restructuring plan for the structure of the paths based on an exchange of data on a draft relocation plan of the at least one node function and data on a draft restructuring plan of the structure of the paths (Nguyen, page 3, paragraphs 57-72 and Nguyen, page 5, paragraphs 107-122), the exchange of data being between the function relocation unit and the path restructure unit (Nguyen, page 4, paragraph 85 - page 5, paragraph 122); and a control unit configured to determine whether transmission of the instruction of relocation to the function relocation unit is necessary and whether transmission of the instruction of restructuring to the path restructure unit is necessary (Nguyen, page 4, paragraph 85 – page 5, paragraph 122) based on the statutes of the node resources and the statues of link resources (Nguyen, page 3, paragraphs 63-72), wherein the control unit is further configured to selectively transmit the instruction of relocation and the instruction of restructuring (Nguyen, page 5, paragraphs 88-122).

Nguyen does not explicitly teach the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices.

However, Guimbellot teaches the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function (Guimbellot, page 6, paragraph 58 and 60) from the first device (Guimbellot, Fig. 2, element 210; page 5, paragraph 52) to the second device (Guimbellot, Fig. 2, element 212; page 5, paragraph 52), the first device being configured to transmit node function definition data to

the second device in response to receipt of the transfer instruction (Guimbellot, page 5, paragraph 52), the node resources comprising resources of the first and second devices (Guimbellot, page 4, paragraph 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Guimbellot in order to enable the function relocation unit being further configured to transmit a transfer instruction to a first device for relocation of the at least one node function from the first device to the second device, the first device being configured to transmit node function definition data to the second device in response to receipt of the transfer instruction, the node resources comprising resources of the first and second devices. One would be motivated to do so in order to transfer resources from a failing or offline cluster server to a functioning one, thereby providing users with constant access to resources (Guimbellot, page 1, paragraph 6).

The combination of Nguyen and Guimbellot does not explicitly teach the node function definition data comprising executable code that implements the at least one node function.

However, Bell teaches the node function definition data comprising executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47), the node function definition data (Bell, pages 5-6, paragraphs 45-47), and the user data being data processed in response to execution of the executable code that implements the at least one node function (Bell, pages 5-6, paragraphs 45-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen and Guimbellot in view of Bell in order to enable the node function definition data comprising executable code that implements the at

least one node function. One would be motivated to do so in order to reduce the effort required to gather configuration data necessary to allow a second executable computer code to take over the functions of a first executable computer code (Bell, page 1, paragraph 2).

The combination of Nguyen and Guimbellot does not explicitly teach the network structure controlling device wherein the first device is further configured to transmit both user data directly from the first device to the second device.

However, Leung teaches the network structure controlling device wherein the control unit is further configured to determine whether transmission of the instruction of relocation to the function relocation unit is necessary in response to the detection of movement of a user terminal from a first coverage area to a second coverage area (Leung, page 3, paragraph 35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nguyen, Guimbellot, and Bell in view of Leung in order to enable the network structure controlling device wherein the first device is further configured to transmit both user data (Leung, page 1, paragraph 9) directly from the first device to the second device. One would be motivated to do so in order to more efficiently route data traffic (Leung, page 2, paragraph 13).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on (571) 272-6798. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Alicia Baturay/
Examiner, Art Unit 2446

September 8, 2010

/Benjamin R Bruckart/

Primary Examiner, Art Unit 2446